

Fort Bliss Energy, Water, and Solid Waste Sustainability Initiatives Draft Environmental Impact Statement (EIS)

Public Meetings
June 10-11 & 13, 2013



Fort Bliss Garrison Commander and EIS Lead Project Personnel

- COL Brant Dayley, Garrison Commander, Fort Bliss
- BJ Tomlinson, DPW Renewable Energy Manager, Fort Bliss
- Pamela Klinger, Army Environmental Command
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- John Kipp, DPW Environmental Division, Fort Bliss

Purpose of Today's Meeting

- Inform the public of the availability of the Army's Draft Environmental Impact Statement (EIS) for implementation of “Net Zero” Initiatives at Fort Bliss.
- Solicit input from the public regarding the alternatives presented and the environmental analysis of sustainable energy, water, and solid waste initiatives at Fort Bliss.
- Provide the public with an opportunity to obtain information about the project and provide comments regarding the Draft EIS.

Agenda

- Overview of Army Net Zero Initiative
- Fort Bliss's Role in Net Zero
- Purpose and Need
- Proposed Action
- Alternatives
- Potential Environmental Concerns
- EIS Timeline
- Questions

Why Net Zero?

- Increase energy & water security.
- Reduce energy and water demand and solid waste generation.
- Army installations have a mandate to improve efficiencies in energy, water, and waste for the benefit of our current and future missions, quality of life, and relationships with local communities.

Purpose and Need

- **Purpose:** To fully implement the Army's Net Zero energy, water and waste goals at Fort Bliss to ensure the Installation's critical mission can be sustained in the future.
- **Need:** Net Zero is needed at this time to:
 - Better insulate Fort Bliss from potential disruptions to its energy supply due to vulnerable energy infrastructure;
 - Address both short-and long-term variations to water supply and quality;
 - Preserve raw materials for future use;
 - Minimize solid waste generation;
 - Reduce operating costs and reduce the demand for services provided by off-Installation providers all while protecting the overall mission of Fort Bliss.

Net Zero Definitions

- **Energy:** A Net Zero Energy Installation produces as much energy on site as it uses over the course of a year.
- **Water:** A Net Zero Water Installation limits consumption of freshwater resources and returns water back to the same watershed in a manner that does not reduce the quantity or quality of the groundwater and surface water resources of that region over the course of a year.
- **Waste:** A Net Zero Waste Installation reduces, re-uses, and recovers waste streams, converting them to resource values with zero landfill requirements over the course of a year.

Proposed Action

- The Proposed Action is to implement the Army's Net Zero waste, water, and energy goals at Fort Bliss. Fort Bliss would evaluate and implement where feasible:
 - (1) producing as much renewable energy on the Installation as it uses annually;
 - (2) limiting the consumption of freshwater resources; and
 - (3) reducing, reusing, and recovering waste streams, converting them to resource value with zero solid waste landfilling.

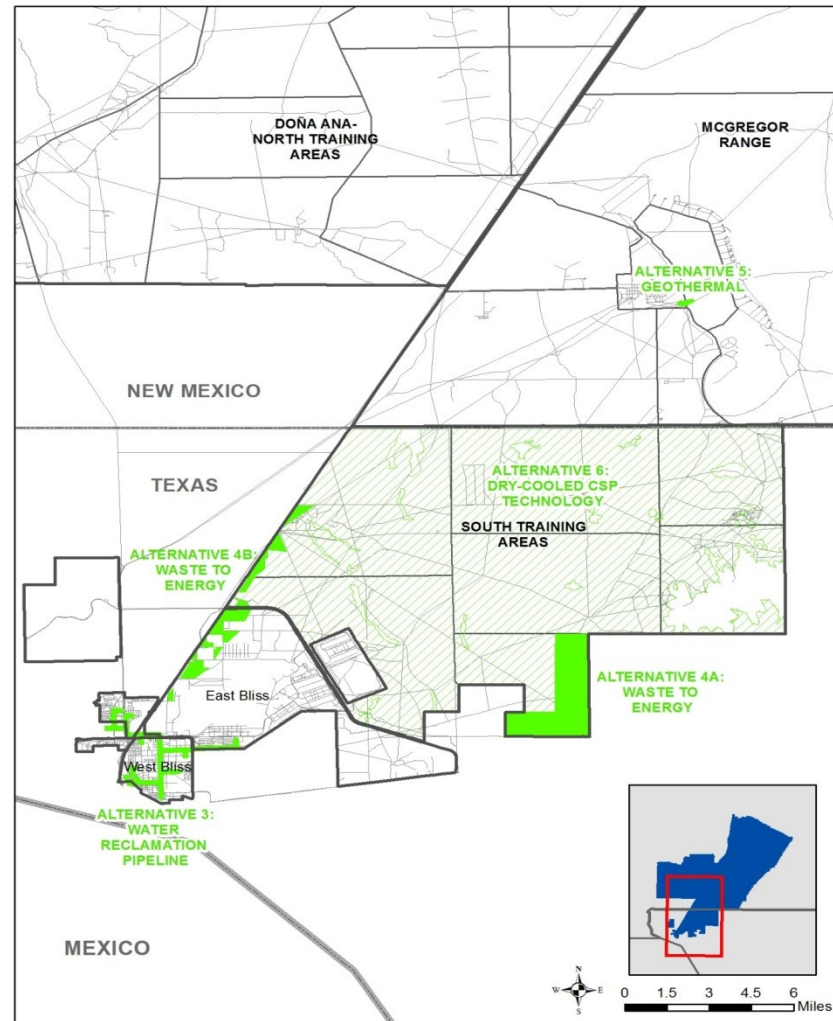
Alternatives

- Six Action Alternatives, and a No Action Alternative were considered for evaluation in the EIS.
- Alternative 1 is the No Action Alternative
- Alternative 2 maximizes conservation practices to reduce resource consumption and waste generation to the maximum extent possible without infrastructure project improvements

Alternatives

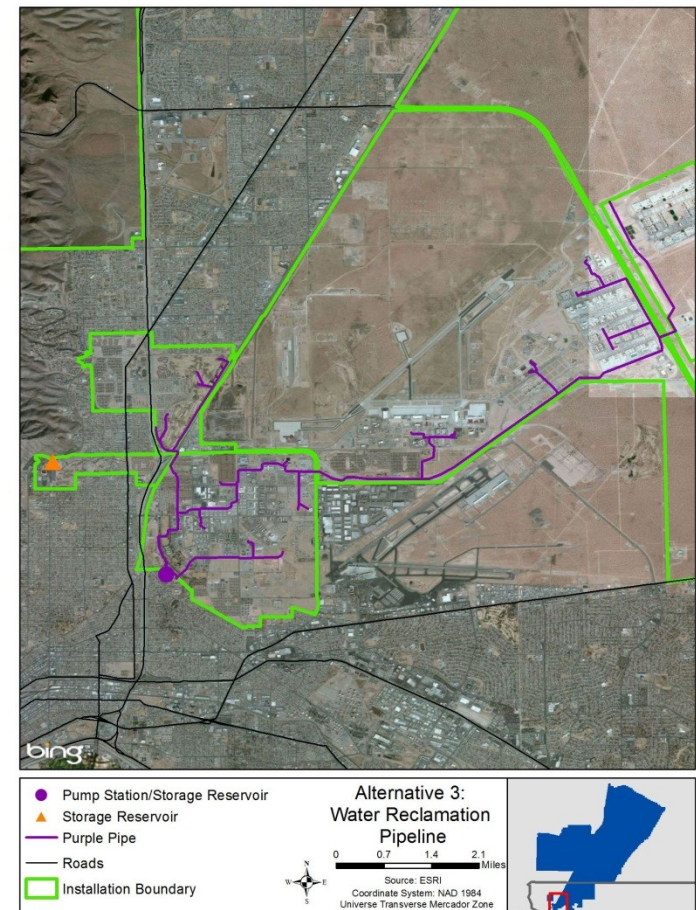
- Alternatives 3-6 will evaluate water conservation, waste reduction, and energy infrastructure.
- Alternative 7 is a programmatic alternative for future energy development projects that may support Fort Bliss Net Zero initiatives.
- The Army may elect to implement more than one alternative, or a combination of proposed alternatives to best implement Net Zero sustainability initiatives at Fort Bliss.

Proposed Project Locations



Alternative 3 – Water Reclamation Pipeline

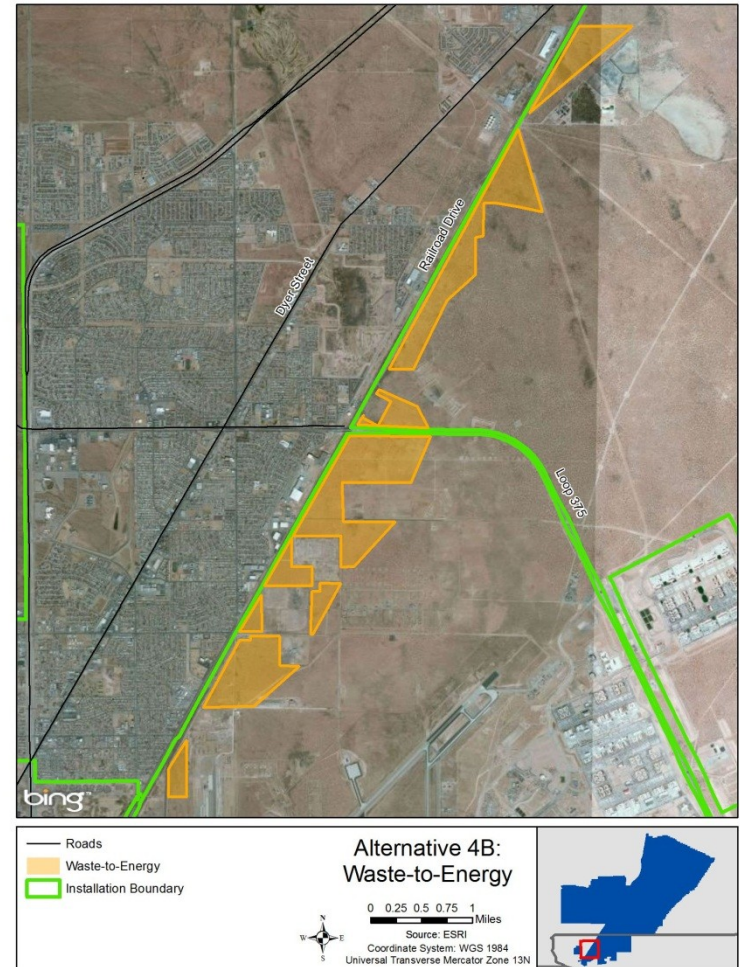
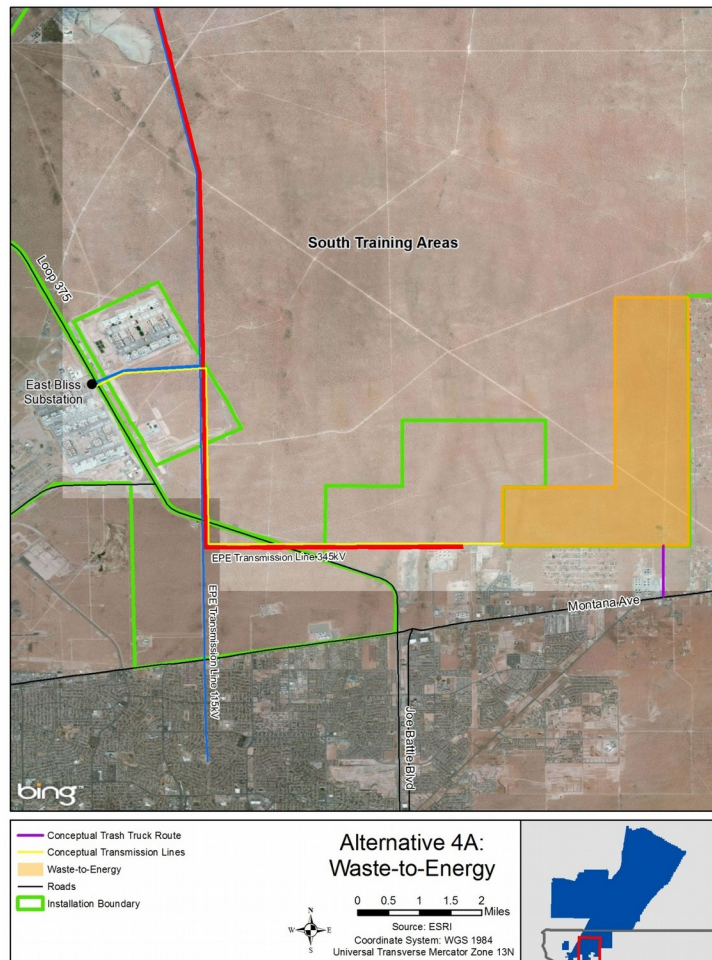
- A “purple” water pipeline system would be extended onto Fort Bliss from City of El Paso wastewater treatment plants.
- The reclaimed water would be available for installation secondary uses including landscape irrigation, golf course irrigation, central cooling towers, and central wash facility for cleaning tactical vehicles returning from training in the field.



Alternative 4 - Waste-to-Energy (WTE) Plant

- Construction and Operation of a 45 MW WTE Plant
- Two site alternatives have been identified for this Alternative; one in the southern portion of the South Training Area and the other, somewhere adjacent to Railroad Drive.
- Land for development would be conveyed to the City of El Paso or a private developer for construction and operation.
- WTE Plant will require utilization of municipal waste from the City of El Paso, delivered via collection trucks.
- 10-20 percent of the waste tonnage would become ash and disposed of in an off-post landfill. This includes all non-combustible materials received.
- Scrubbers, baghouses, catalytic, and non-catalytic emissions control equipment would be included as part of the WTE.

Alternative 4 - Waste-to-Energy (WTE) Plant



Alternative 5 – Geothermal Energy Facility

- Construction and operation of a geothermal energy facility at Davis Dome (McGregor Range Camp) in New Mexico, with a maximum generating capacity of 20 MW.
- Possible construction and use of a concentrating solar thermal (CST) system to support the geothermal resource.



Alternative 6 –Dry-cooled Concentrating Solar Power (CSP) Technology

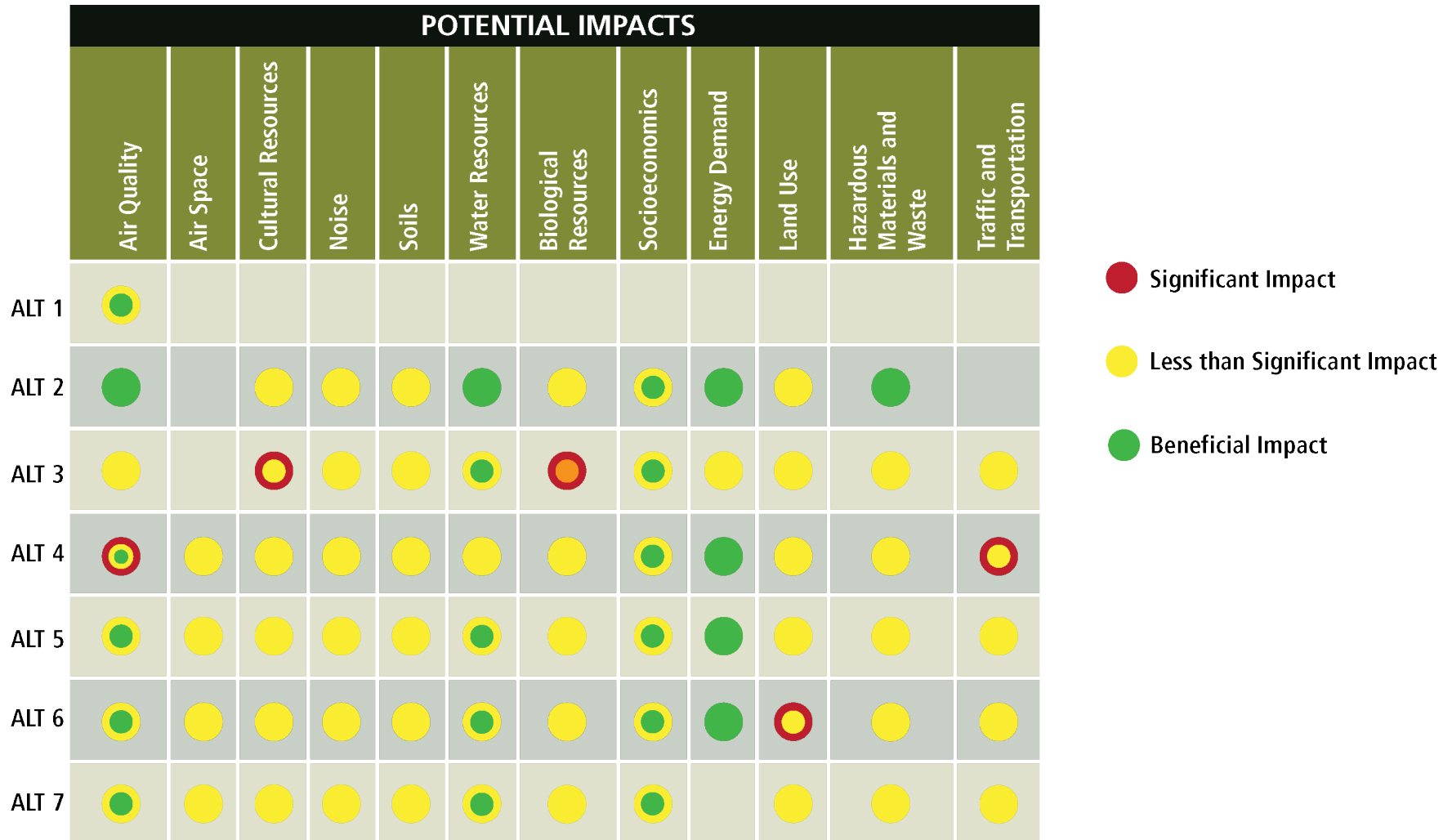
- CSP systems, such as the parabolic trough, would cover approximately 300 acres in the South Training Area, with a maximum generating capacity of 50 MW.
- The CSP system would use a dry-cooling technology to conserve water.



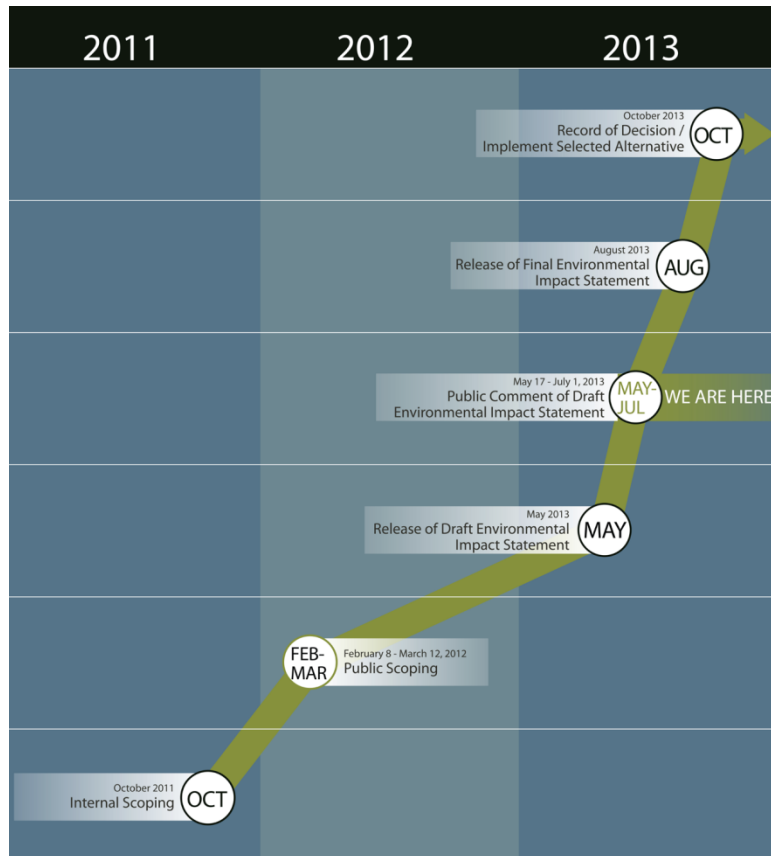
Alternative 7 - Implementation of Additional Renewable Energy Development within Future Compatible Net Zero Footprints

- Involves biomass, geothermal, wind, or solar resources in compatible footprints across the installation.
- Would allow Fort Bliss to use this EIS for future projects which fit within the scope of the environmental analysis.
 - Additional projects would need to meet the alternatives screening criteria and environmental criteria presented in the DEIS.

Potential Impacts of Renewable Technologies



EIS Timeline



- Fort Bliss is in the middle of the NEPA process (Public DEIS Meetings).
- The Comment Period ends July 1, 2013.
- The Final EIS will be prepared after comments have been considered and anticipated to be published in August, 2013.
- A Record of Decision issued in October, 2013.

Questions?